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# A Proposal for the Study of Trade and Conflict Among Developing Nations

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## A Proposal for the Study of Trade and Conflict Among Developing Nations

### I. Introduction:

Jack Levy has criticized the preoccupation with great powers within the discipline of political science (Tetlock, 1989 p. 215). I join him in that criticism. I feel that, within the field of peace research specifically, a great benefit would be gained from a more detailed examination of the world's developing nations. Studying these smaller nations would greatly increase the case size of any investigation, leading possibly to remarkably different results. It would also provide valuable information about the nations which constitute a majority of the international system's membership. Finally, there may be practical implications for research into such a growing, yet neglected, segment of the world's nations.

One major reason for increased study of developing nations is simply the lack of current information. Gaping holes in the knowledge base of a discipline are to be avoided at all costs. Plugging these holes can provide a more comprehensive understanding of both the discipline as a whole and individual cases within the discipline. Eliminating knowledge gaps can also help prevent faulty assumptions from tainting hypotheses and creating misinterpretations of completed research. When mankind believed that the Sun orbited the Earth, countless scientific phenomenon were misinterpreted. Later, after more focused research into a variety of smaller areas

undermined this assumption, these scientific phenomenon were reevaluated and a greater understanding resulted. I believe that the elimination of knowledge gaps in the field of political science could have a similar, if not quite so profound, an impact on our understanding of the international system.

This increased understanding of the system through a study of developing nations could have an effect on our understanding of the great powers with which we are so often preoccupied. Perhaps through a study of the conflict patterns of smaller nations, a greater understanding of the conflict patterns of larger nations could be inferred. If all nations behave as self-serving individuals, as some have suggested, would the behavior patterns of these smaller nations be transferable? If so, the greater number of cases provided by an expansion of the research domain would only make results in the study of conflict more reliable. This is clearly a dubious proposition, but the results of such an expansion, even if not completely transferable, would most likely shed an interesting new light on the study of major powers.

Even if the results had little effect on the study of great powers, the study of developing nations would still be a worthwhile venture. The new information concerning these nations is inherently valuable to the discipline. In a world that is home to only a few great powers, developing nations are extremely important. They greatly outnumber the great powers and are home to a vast majority of the world's population. Furthermore, as that population continues to grow at a greater rate than available resources, they will increasingly become home to the vast majority of the world's global problems. More specifically, developing nations are increasingly important in terms of conflict. The few great powers that do exist are increasingly in alliance with one another. Great wars are

becoming less frequent partially as a result. In a world where a majority of the conflicts are smaller-scale events with small states as the principal actors, a discipline that continues to focus on large-scale conflicts among major, predominately European, powers will quickly become outdated.

Finally, the study of conflict among developing nations might even have practical implications. The major actors of the global community have been attempting to promote political and economic stability in developing nations for a number of years. The United States, as well as many of the other major states of the world, has a vested interest in such stability. Though recent U.S. involvement in international crises has not carried a severe price tag in terms of human life, it has not been cheap in terms of dollars. As the United States struggles to eliminate a near permanent budget deficit, military expenditures will be ever more harshly scrutinized. Stability may increase revenue as well as reduce expenditure. If foreign markets are unimpeded by conflict, American exporters are likely to enjoy a far greater level of success. This success contributes to a healthy national economy that keeps elected officials in office. Clearly, there is an inherent national interest in global political stability. If an increased focus within the discipline yields a greater understanding of the causes of stability among developing nations, there would clearly be practical, as well as academic, benefits.

There are numerous reasons for an increased focus on developing nations within the discipline and, more specifically, within the field of peace research. Greater attention could provide a better understanding of the system as a whole and would certainly provide a better understanding of the smaller nations that constitute a large part of the system. I will proceed to provide a brief discussion of some relevant literature, outline

some suggestions for the study of conflict among developing nations, and provide a research proposal as a possible example for this study.

## II. Literature Review:

### Theoretical Background:

In *The Principles of Political Economy and Taxation* (Ricardo 1911), David Ricardo outlines the economic arguments supporting trade among nations. He discusses and illustrates the concepts of absolute and comparative advantage and concludes that international trade is beneficial to all those involved. Ricardo also devotes a chapter to the negative impact of a dramatic change in the terms of trade. It is his belief that, if two nations are in a trading relationship, both nations suffer when the pattern of trade is significantly altered. The discussions of trade and its impact are very similar to those in *Wealth of Nations* (Smith 1910).

Norman Angell expands upon the concept of mutually beneficial trade in *The Great Illusion* (Angell 1910). In this work, Angell introduces several of the concepts that are now staples in liberal international thought. He claims that nations no longer need to expand their territory in order to expand their wealth. Territory is no longer an appropriate means of measuring a nation's wealth, as exemplified by the presence of several small, wealthy, European states, and military means of conquest serve no economic purpose in a modern society. Angell also reasons that the wealth of another nation cannot be militarily seized. He brutally attacks several arguments to the contrary and introduces several models to demonstrate his point. Angell eventually concludes that nations actually suffer as a result of their invasion of another state. He demonstrates,

through a discussion of the phenomenon of international finance, the futility and self-destructive nature of attacking one's own creditors or debtors.

*Perpetual Peace* (Kant 1948) is a political essay in the form of a proposed model international constitution. In this work Kant adapts the economic principles of the preceding authors and creates a theory about the actual behavior of nations. He believes that the inherent interest of nations in wealth will lead to an eventual peace. In the modern world, commerce is the most efficient means to obtain wealth. However, because of the nature of trade, free commerce cannot coexist with war. Therefore, as international commerce spreads around the globe, so will peace. Nations acting in their own self-interest would be foolish to go to war and risk the subsequent loss of wealth.

Harold Laski offers a slightly different view in the inter-war essay "The Economic Foundations of Peace" (Laski 1973). Laski is a proponent of a fairly standard world systems theory, arguing that conflict is largely the result of capitalist exploitation of colonies and poor nations. His views have interesting implications for my thesis, however, because of his focus on the balance and direction of trade, as well as the nature of the states involved.

In *Saved From Oblivion* (de Wilde 1991), Jaap de Wilde discusses much of the early interdependence theory and the thinkers behind it. He then attempts to apply their theories and insights to the cold war era. He believes that increased interdependence can actually lead to war if the nature and extent of that interdependence is not appreciated. He also concludes that in today's complex, individualistic society, the real source of political power is derived from participation in the international system, not from military force.

### Contemporary Works:

*Models, Methods and Progress in World Politics* (Singer 1990) is essentially Singer's prescription for the field of peace research. He discusses numerous problems with the discipline and advocates a more scientific approach. He proceeds to discuss numerous aspects of the nature of political science theory, and gives several examples of what he considers to be "good" research. He concludes with some advice on the future study of the subject.

Jack Levy devotes his chapter in *Behavior, Society, and Nuclear War* (Tetlock 1989) to a discussion of theory concerning the causes of war. He reaches several conclusions about the discipline and offers several suggestions. One general problem is that, "The literature on the causes of war demonstrates a clear bias toward great power behavior" (Levy, 215). He also notes what he perceives as a complete lack of consensus on the actual causes of war, the most appropriate methodological approach, the most appropriate framework of study, or even the best criteria for the judgment of the aforementioned. He attributes these problems largely to equifinality, multifinality, and the failure to demonstrate why some relationships exist in some situations but not others. Levy advises that, when studying the causes of war, the focus should be on the necessary rather than the sufficient factors in the outbreak of war.

In "Conflict and Trade" (Polachek 1980), the author found that, within dyadic pairs, greater levels of trade lead to lower levels of hostility. This is true especially when the trade is considered strategic. He also found that, though trade and conflict are

interrelated, causality seems to flow from trade levels to the level of conflict.

Furthermore, trade increases cooperation to a greater extent than it decreases conflict.

John O'neal supports Polachek's findings in "The Liberal Peace: Interdependence, Democracy, and International Conflict". He found that, especially in otherwise war prone dyads, trade contributes significantly to the presence of peace. He also supported the Kantian idea that democracy and the relative importance of trade further contribute to peace.

Barbieri (1996) presents a completely different finding. She claims that though interdependence does not affect the incidence of wars, it increases the likelihood of militarized disputes. In situations of mutual dependence, the relationship becomes more curvilinear, but the overall result is that high levels of interdependence are more likely to result in conflict.

Mark Gasiorowski (1986) presents a more tempered result. He finds that increased interdependence is associated with an increase in international conflict. However, when trade alone was considered, the volume of trade was inversely related to the likelihood of conflict. He believed that beneficial trade led to a decrease in conflict while costly trade led to increased conflict. de Vries (1990) supports these conclusions. In his study of interdependence (measured as military, economic, institutional, and diplomatic ties), cooperation, and conflict, he found that interdependence intensifies all relationships. A high level of interdependence leads to an increase in the probability of both conflict and cooperation. A nation with few international ties will have lukewarm relations with other nations, but a highly interdependent nation will be more intensely involved, either cooperatively or conflictually, with other nations. It is also interesting to



note that de Vries found a high correlation among his measures of interdependence, and the results of his study differed very little if any one of the components was substituted for the overall interdependence measure.

*Power, Trade, and War* (Mansfield 1994) examines the incidence of major power war and its relationship to trade. The author found that neither hegemony nor a particular polarity structure is related to the frequency of major power war. He also suggested that neither the balance of power nor preponderance theories fully explain the outbreak of war among major powers. He did find, however, that trade has an inverse relationship to the frequency of major power war. Minor powers, conversely, experienced a significantly different relationship between trade and war.

In *International Trade Problems of Small Nations* (Lloyd 1968), Peter Lloyd examines trade and small nations in a slightly different manner. He uses national income as a measure of country size and reaches several conclusions about small nations. First, the size of a nation is a significant factor neither in the ratio of international trade to GNP, nor in the ratio of commodity concentration to export trade. Secondly, most small nations enjoy greater gains from trade and are more sensitive to changes in the terms of trade. Finally, small countries are too heterogenic to be lumped into one general category of study.

Stuart Bremer (1992) finds a number of factors increase the likelihood of war within dyads. He lists them from most important to least important as: contiguity, the absence of an alliance between the two nations, the absence of an advanced economy, the absence of democracy, the absence of overwhelming preponderance, and the presence of

a major power. He also notes that the first four factors are each more than twice as important as the last two.

“Geography, Democracy and Peace” (Gleditsch 1995) examines the relationship between contiguity, democracy, and conflict. This study supports the widely held beliefs that democracies rarely fight one another, and that nations primarily fight proximate nations. Russett (1993) also finds support for the idea of peace among democracies. Kenneth Benoit (1996) provides a variation on the theme of a democratic peace. Benoit examined the research of several authors, who had found that there was peace among democracies, but not between democracies and other nations, and applied new statistical methods to their data. He found, when the more accurate statistical measures were used, that the data clearly show that democracies are more peaceful in general. The peace is not limited only to relations with other democracies.

In “The War Proneness of Alliances” (Oren 1990), Ido Oren examines the conflicting findings regarding the relationship of alliances to war. The author found that, generally, the larger the alliance, the greater the number of wars each of its members experienced. It was further noted that this relationship has remained consistent over time. The results are qualified by the fact that the increase in war involvement did not reflect an increase in hostility or the likelihood of attack by another nation, but simply demonstrated that nations in an alliance are more likely to join a war in progress.

Stuart Bremer (1980) examines the phenomenon that most nations fight few wars, but a few nations fight most wars. He finds that nations with high aggregate capabilities do indeed tend both to be involved in and start more wars. Furthermore, those wars are more severe. He suggests that a few powerful, war prone nations seem to go to war most

often because they have either fought to gain their power, they fight to maintain a reputation as powerful, or they fight because they are powerful and can intervene to maintain the international system.

Dan Geller (1993) provides an alternate examination of the phenomenon. He examines dyads that have traditionally been in conflict. He found that, among traditional rivals, past conflict levels are related to present conflict levels. The study also examines the balance of power relationship. Geller found that, in terms of military power, static parity is twice as likely to lead to war as static preponderance. He also found that shifts toward parity are twice as likely to lead to war as actual power transitions.

### III. Plan for Research Concerning Conflict among Developing Nations

Before an extensive investigation of conflict among developing nations can begin, the concept of conflict within the discipline must be reexamined. Currently, many researchers focus on war as the primary embodiment of international conflict. Some require a minimum number of battle-deaths. I believe that conflict, especially conflict among developing nations, would be better understood if it were studied in a broader context.

The scarcity of major wars, both in general and among smaller states, provides a major justification for a reexamination of the concept of conflict. Using data from the World Development Report, a world map, and the Correlates of War, I compiled a list of nearly 150 contiguous dyads involving only developing nations. I then examined those dyads in the years from 1950 to 1988. In the resulting 4,221 cases, there were only thirteen instances of conflict that met the COW requirement of 1000 battle-deaths. Yes,

most nations are at peace most of the time, but an incidence rate of 0.308% clearly demonstrates the problems of using such a restrictive concept of conflict when examining smaller nations. These nations have smaller forces at the outset of a war. Therefore, the number of total possible deaths is dramatically lower. Furthermore, a smaller force is more severely impaired by losses than a larger one. A nation with a small army may only be willing to sustain 1000 battle-deaths if national survival is at stake.

Redefining our idea of conflict is further justified by the wealth of information to be gained from such a redefinition. Broadening the definition would allow researchers to examine not war itself, but the conflicts that necessarily preclude, but do not always result in war. Just as a psychologist would gain more information by studying the causes of all suicide attempts rather than only the causes of successful ones, a political science researcher could gain more information by studying the causes of all international conflict rather than only the causes of conflict that results in war. A logical extension of this research would be the comparison of conflicts that result in war and those that do not. Once again, an expansion of previous focus could result in a dramatic expansion of knowledge within the discipline.

There are, however, problems that must be overcome in order to accomplish this goal. The first is simply the lack of available data on smaller scale conflicts. As I have previously mentioned, the Correlates of War data set requires that a conflict result in nearly 1000 total battle-deaths before it is included in the set. Though this number, probably randomly selected for reasons of convenience, may be useful in some instances, it is severely restrictive when used with a broader concept of conflict. The obvious solution is simply to create a new database without the restrictions of existing sources.

Though this would undoubtedly be a time-consuming effort, I have a feeling that the creation of the data sets that are already widely in use was not done overnight either.

A second major problem in the development of a new definition of conflict is the difficulty of defining and measuring an essentially intangible concept. The problems of defining intangible concepts become readily apparent when perusing stacks of academic journals. Article after article attacks one author's definition or measurement of an intangible in favor of some new definition or measurement. I might add, however, that in this paper I am recommending a massive broadening of the subject matter, not attacking previous research. I believe that when defining intangibles, the definition selected should be as clear, simple, and quantifiable, as possible. Using these requirements, international conflict could be defined: Any instance in which one nation attempts to inflict harm, either physical or economic, upon another nation through military means.

I believe that this definition, though not an exclusive answer, addresses some of the problems of which I have spoken. It is brief, discusses the requirements for inclusion, and makes the subject matter more quantifiable. Because an active use of military power is required, instances of conflict would likely have been recorded in some manner. Because there is no requirement for the scope, duration, or even effectiveness of the military action, conflict is measured without the severe restrictions imposed by other definitions. Finally, it does not have a rigid requirement of motive. With this definition, a blockade would be considered an international conflict. I think this type of behavior is exactly what should be studied when focusing on developing nations. However, I have suggested this definition only as an example. Other definitions could be as effective or even more effective. The COW set uses the phrase, "threaten, display, or use military

force” in its determination of the initiator. Perhaps this could be manipulated into a working definition of conflict. Regardless of the final product, the goals of clarity, simplicity, and quantifiability should be met.

Once these conditions have been met, an exhaustive, methodical approach to the study of conflict in developing nations could begin. Though the very nature of the subject matter in the social sciences prevents a perfect scientific approach, any efforts in social science research should be as scientific as possible. Various hypotheses should be proposed, tested, refuted or confirmed, and finally expanded upon. Gradually, as knowledge of the subject grows, a cohesive body of information would be formed.

When studying conflict among developing nations, many of the same questions posed of conflict among great powers could be reexamined. Researchers would explore the relationship between conflict and many of the same concepts addressed in previous research. Some of the first research should focus on relationships that are well documented in the existing research. These could include trade, contiguity, alliance, and regime type. Later, more uncertain relationships could be explored. I believe that the relationship between religious and ethnic differences and conflict would be an especially relevant topic for developing nations. The relationship of other concepts, such as the preponderance or parity of military strength and development levels, to conflict would also be interesting in the developing nation context. These subjects, however, would probably best be studied if they were saved until after more information had been gained about the more common subjects in the study of conflict.

As the study of conflict in developing nations became more common, hypotheses and methodology would be proposed and later rejected by ensuing research. Eventually,

general trends would develop. I believe that it is the discovery of these trends that should be the initial goal of any social science. Once these trends are widely accepted, more specific research would deepen the newly broadened pool of knowledge. More ornate methodologies would be conceived and more specific questions would be addressed. Eventually, if the scientific method works as its supposed to work, a full, but constantly growing and changing, body of knowledge concerning conflict among developing nations would develop.

Once this body of knowledge develops, the final stage of my research plan could be implemented. Though comparisons would be made in the early stages of the research, once a solid body of knowledge has developed, it could be compared with the body of knowledge concerning conflict among the great powers. Undoubtedly, the relationship between various concepts in the minor power context would differ considerably from the same relationships in the major power context. The relationships between other concepts might be strikingly similar. When the relationships are similar, the greatly expanded case size would lend new credibility to older theories of conflict. Perhaps it would even shed new light on previously puzzling problems. When the relationships are different, new questions concerning the causes of those differences could be asked. Maybe the differences would be attributed to differences in the nature of the nations. Maybe some differences would be the result of problems in previous research. Either way, a new focus on the study of conflict in developing nations, and a focus on developing nations in general, would bridge a rather substantial knowledge gap within the discipline and provide a vast new realm of study.

#### IV Sample Research Proposal:

I have written a research proposal, detailed in the following pages, that I feel embodies many of the characteristics that new research into the relationship between conflict and trade should have. Though this proposal is not perfect, I believe that, were the means available, it would result in some very interesting findings. The proposal is nearly self-contained and could be used as a model for future research.

##### A. Introduction:

Though traditional liberal thought regarding trade and conflict has a long and detailed history, it can be summarized very briefly: Trade is beneficial to all nations involved, and war disrupts trade. Therefore war is mutually disadvantageous in most circumstances. Modern scholars such as Polachek (1980) and O'Neal (1996) have supported these broad theoretical claims with more focused research.

I also intend to explore the relationship between trade and conflict in my thesis. However, by examining a number of areas often overlooked, I hope to shed new light on a very old topic. This thesis will be limited to developing nations and include an investigation of the direction of trade. It will also include a definition of conflict far broader than the war-type definitions that are the preoccupation of many studies. As a result, I believe this thesis will provide a more detailed understanding of the relationship between trade and conflict than has previously been available.



## B. Spatial/Temporal Domain:

The first limitation of my domain is temporal. This study will examine only the years from 1950 to 1994. The time limitation involved has practical as well as theoretical purposes. Because my thesis focuses on developing nations, the collection of reliable data for the years prior to 1950 would be nearly impossible. I also believe that the changes in technology and the political system warrant such a limitation. The very nature and scope of war has changed dramatically since World War II. Furthermore, many of the nations I hope to study were only colonies in the centuries prior to 1950. Though many gained their independence even later, there were enough sovereign developing nations in 1950 to warrant study. Finally, the 1994 limitation permits my thesis modern relevancy while allowing for the data collection lag that is inevitable in any attempt at data compilation.

Partially as a response to the accusation of a preoccupation with great powers in political science research (Tetlock 1989, p. 215), I will also limit my case selection based on the size of the nations involved. As I have already mentioned, I will be examining developing nations. I find the study of developing nations particularly interesting given Mansfield's findings (1994) that major and minor powers differ significantly in their relationship between trade and war. Clearly, geographic size is a poor indicator of a nation's capabilities. Any attempt to study trade and conflict in a non-major power context that included such geographically small but militarily and economically relevant countries as Britain and Germany would be extremely distorted. I believe that GDP per

capita is the most relevant measure of a nation's status in this situation. It allows me to categorize nations by their development status while controlling for population levels. More specifically, I will include those nations with economies categorized as either low or lower-middle income in the 1994 World Development Report. Using the 1994 listing allows me to maintain a constant set of countries, providing they existed, throughout my time span. It also eliminates problems caused by the fact that the reports only date to 1978. Because the list has remained nearly constant in its membership for the past twenty years, I see very few statistical problems as a result of this method.

I think it will be necessary to limit further my case selection geographically. In an effort to maintain a focus on independent, developing nations, I will exclude Europe from my study altogether. Most nations in Europe were so involved in the cold war struggle that there was little possibility for independent conflict. Furthermore, few, if any, sovereign, developing, European nations would have been relevant dyads in my case selection. Those that would merit consideration are newly independent and, in my opinion, of little additional value to this project.

Finally, I will limit my dyads by contiguity. Common sense tells us that nations that are near to one another are more likely to have conflict between them than nations that are separated by great distances. Even individuals are unlikely to argue with someone whom they never see. This logic is strongly supported by the research of Bremer (1992), Lemke (1995), and Gleditsch (1995). Though many definitions of contiguity have been used in conflict research, I believe that Lemke's is the most compelling. He defines contiguous dyads as, "jointly reachable pairs of states" and provides a detailed formula for determining the military reach of a particular nation.

Unfortunately, the use of this formula, which requires a considerable knowledge of military capability, would be virtually impossible in a case selection of this magnitude. I have used his estimates of the capabilities of various types of nations to obtain the requirement that relevant nations be within 200 miles of one another.

### C. Methodology:

The relationship between trade and conflict will be examined in a dyad-year setting. Each case will consist of the data from one dyadic pair of nations in one year. Any collinear effects that the use of individual years might have on the final results will be revealed in the final statistical analysis of the results. All nations will be paired with all other nations in every year that both nations were in existence as sovereign nations. Any contiguously irrelevant dyads will be discarded.

The data will be entered into a relatively simple equation subject to logit analysis. The dependent variable will be conflict. If there is conflict the variable will be entered as "1". If not it will be entered as "0". The primary independent variable will be trade. The trade variable will be entered as a sliding variable between zero and one that expresses the ratio of total dyadic trade to total dyadic GDP. My control variables will be democracy, "1" if a democratic dyad, "0" if not; and alliance, "1" if the two nations are in a non-aggression alliance, "0" if not. I will also examine the balance of trade as a secondary independent variable. After performing my initial analysis, I will use the ratio of dyadic imports to dyadic trade for one of the two nations in each case as the

independent variable and explore the relationship between trade and conflict at a slightly different level. All variables will be discussed at greater length subsequently.

#### D. Variables:

My dependent variable of conflict will include all instances where there is a use of military force. When investigating the conflicts of developing nations, the traditional idea of war becomes obsolete. This is especially true of data sets such as the Correlates of War, which require a minimum number of battle-deaths before an action is included in the set. Though minimum fatality levels, roughly 1000 in COW, may be appropriate for powerful nations, they exclude most of the world's conflicts. Such tremendous losses would be devastating to states with smaller forces, and most armed conflicts are resolved long before battle-deaths reach a significant number. Any study of the relationship between trade and conflict should involve a less restrictive definition of conflict. In this case, I want to determine whether or not trade reduces the likelihood of conflict, not whether or not trade prevents an escalation of conflict. In either case, data on minor conflicts would still be utilized.

My primary independent variable of trade will be measured as the ratio of total dyadic trade to total dyadic GDP. This measure allows me to measure not the volume of trade, which would be distorted by differences in the sizes of the nations involved, but the relative importance of that trade on the dyadic economy. The rationale for this measure is that nations are less likely to engage in conflict if they would suffer heavy economic losses as a result of the loss of trade. Therefore, the most appropriate

measure of trade would provide an indication of the importance of that trade to the nations involved. I believe that this measure does.

After completing my analysis of the primary independent variable, I will examine the relationship between my secondary independent variable, the balance of trade, measured as the ratio of one nation's dyadic imports to total dyadic trade. This will give a ratio, with .5 as a perfect balance, that can be used to determine the equity of the trading situation.

My first control variable will be democracy. Political science research has consistently demonstrated that democracies do not go to war with one another. Any study that did not control for democracy would be vulnerable to a strong alternative explanation for a lack of conflict among many of its dyads. I have also found, however, that there is no general consensus on the theory that democracies are more pacific in general. Therefore, I will require that both nations in a dyad be democracies in order to consider that dyad democratic. In my study, I will consider any nation with a score of 5 or greater in the Polity data sets to be a democracy. Several authors I researched used this method and it seems to be well received. A democratic dyad will be entered as a 1 in my equation. Non-democratic dyads will be entered as 0.

Finally, I will control for the presence of a non-aggression alliance. Nearly every author I surveyed chose to do so, and the reasons seem quite clear. If two nations have signed a pact promising not to attack one another, any number of alternative explanations for the lack of conflict would be viable. It could easily be argued that the pact would serve as a deterrent to possible attack and encourage a mediation of differences. It could also be argued that, if two nations are willing to enter into such

an agreement, conditions conducive to peace were already present. In either case, alternative factors are a concern and must be controlled. As with my other variables, a 1 will indicate the presence of an alliance and a 0 will indicate the absence of an alliance.

#### E. Hypotheses:

As I have already stated, the presence of democracy and alliance should reduce the likelihood of dyadic conflict. Once democracy and alliances are accounted for, however, there should still be an inverse relationship between the level of dyadic trade/GDP and the probability of conflict. This hypothesis is merely an extension of the traditional liberal ideas that I have previously discussed. I believe that these ideas are not limited to major powers in their application and might be even more pertinent in the case of developing nations. Though major powers might be able to lose a trading partner with only minimal relative loss, I believe that minor powers are more dependent on regional trade with other nations for their basic needs. A nation with a lower level of overall trade should have a lower “threshold of pain” in the area of international trade. Furthermore, the trade flows of smaller nations are more likely to be impaired by conflict than are the flows of large nations with strong production bases both at home and abroad. I also believe that a balanced trading relationship is generally conducive to peace. This idea contrasts with the theory that military parity is more likely to lead to conflict than a disparity. Unlike military matters, where a parity gives both nations a chance to win in an armed conflict, a trading balance allows both partners to benefit relatively equally

from the arrangement. If there is a high level of trade between the nations, both nations would suffer equally from a military interruption of trading patterns. Specifically: In a dyadic relationship between developing nations, the probability of conflict decreases as the ratio of dyadic trade to dyadic GDP increases and the ratio of the dyadic imports to the dyadic trade of either nation approaches .5.

## Bibliography

- Angell, Norman. 1910. *The Great Illusion: a Study of the Relation of Military Power to National Advantage*. New York: G.P. Putnam's Sons.
- Barbieri, Katherine. 1996. "The Liberal Peace: Interdependence, Democracy, and International Conflict". *Journal of Peace Research*. v. 33. Feb. '96. pp. 29-49.
- Benoit, Kenneth. 1996. "Democracies Really Are More Pacific: Reexamining Regime Type and War Involvement". *Journal of Conflict Resolution*. v. 40. Dec. '96. pp. 636-57.
- Blainey, Geoffrey. 1973. *The Causes of War*. London: Macmillan.
- Bremer, Stuart A. 1980. 'National Capabilities and War Proneness'. pp. 57-83 in J. David Singer, ed., *The Correlates of War II: Testing Some Realpolitik Models*. New York: Free Press.
- Bremer, Stuart A. 1992. "Dangerous Dyads: Conditions Affecting the Likelihood of Interstate War, 1816-1965". *Journal of Conflict Resolution*. v. 36. n. 2. June. pp. 309-341.
- de Vries, Michael S. 1990. "Interdependence, Cooperation, and Conflict: An Empirical Analysis". *Journal of Peace Research*. v. 27 n. 4. Nov. pp. 429-444.
- de Wilde, Jaap. 1991. *Saved From Oblivion: Interdependence Theory in the First Half of the 20<sup>th</sup> Century. A Study of the Causality Between War and Complex Interdependence*. Aldershot: Dartmouth.



- Gasiorowski, Mark. 1986. "Economic Interdependence and International Conflict: Some Cross-National Evidence". *International Studies Quarterly*. v. 30. n. 1. March. pp. 23-28.
- Geller, Daniel S. 1993. "Power differential and War in Rival Dyads". *International Studies Quarterly*. v. 37. n. 2. June. pp. 173-194.
- Gleditsch, Nils Petter. 1995. "Geography, Democracy, and Peace". *International Interactions*. v. 20. n. 4. pp. 297-323.
- Gowa, Joanne. 1994. *Allies, Adversaries, and International Trade*. Princeton: Princeton University Press.
- Kant, Immanuel. 1948. "Perpetual Peace". Translated by M. Campbell Smith. New York: The Liberal Arts Press.
- Laski, Harold J. 1973. 'The Economic Foundations of Peace'. pp. 499-547 in Leonard Woolf, ed., *The Intelligent Man's Way to Prevent War*. New York: Garland.
- Lemke, Douglas. 1995. "The Tyranny of Distance: Redefining Relevant Dyads". *International Interactions*. 21: 23-38.
- Lloyd, Peter, J. 1968. *International Trade Problems of Small Nations*. Durham: Duke University Press.
- Levy, Jack S. 1989. 'The Causes of War: A Review of Theories and Evidence'. pp. 209-313 in Philip Tetlock et al, eds., *Behavior, Society, and Nuclear War*, vol. 1. New York: Oxford University Press.
- Mansfield, Edward D. 1994. *Power, Trade, and War*. Princeton: Princeton University Press.

- O'neal John R., et al. 1996. "The Liberal Peace: Interdependence, Democracy, and International Conflict, 1950-1986". *Journal of Peace Research*. v. 33. n. 1. February. pp. 11-28.
- Oren, Ido. 1990. "The War Proneness of Alliances". *Journal of Conflict Resolution*. v. 34. n. 2. June. pp. 208-233.
- Polachek, Solomon W. 1980. "Conflict and Trade". *Journal of Conflict Resolution*. v. 24. n. 1. March. pp. 55-78.
- Ricardo, David. 1911. *The Principles of Political Economy and Taxation*. 3<sup>rd</sup> ed. New York: E.P. Dutton, & Co.
- Russett, Bruce. 1993. *Grasping the Democratic Peace: Principles for a Post-Cold War World*. Princeton: Princeton University Press.
- Singer, J. David. 1990. *Models, Methods, and Progress in World Politics: A Peace Research Odyssey*. Boulder: Westview Press.
- Smith, Adam. 1910. *The Wealth of Nations*. London: Dent.
- Spero, Joan E. 1990. *The Politics of International Economics Relations*. 4<sup>th</sup> ed. New York: St. Martin's Press.